

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference BRA-PI0526-WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DE99/03154	International filing date (day/month/year) 28 September 1999 (28.09.99)	Priority date (day/month/year) 01 October 1998 (01.10.98)
International Patent Classification (IPC) or national classification and IPC H04B 3/58		
Applicant BRANDT, Frank		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 27 April 2000 (27.04.00)	Date of completion of this report 26 June 2000 (26.06.2000)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE99/03154

I. Basis of the report

1. This report has been drawn on the basis of (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments)

☐ the international application as originally filed.

☒ the description. pages 1-28 . as originally filed.
pages _____ . filed with the demand.
pages _____ . filed with the letter of _____
pages _____ . filed with the letter of _____

☒ the claims. Nos. 1-25 . as originally filed.
Nos. _____ . as amended under Article 19.
Nos. _____ . filed with the demand.
Nos. _____ . filed with the letter of _____
Nos. _____ . filed with the letter of _____

☒ the drawings. sheets/fig 1/7-7/7 . as originally filed.
sheets/fig _____ . filed with the demand.
sheets/fig _____ . filed with the letter of _____
sheets/fig _____ . filed with the letter of _____

2. The amendments have resulted in the cancellation of:

☐ the description. pages _____

☐ the claims. Nos. _____

☐ the drawings. sheets/fig _____

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability:
citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-25	YES
	Claims		NO
Inventive step (IS)	Claims	1-25	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-25	YES
	Claims		NO

2. Citations and explanations

1. The invention concerns a process and a device for data transmission in two-way communication via low-voltage networks.
2. The closest prior art DE-A-195 04 587 ((ABB PATENT GMBH), 14 August 1996 (1996-08-14)), which is discussed in the description on pages 2 and 3 and forms the preamble of independent Claims 1 and 16, discloses a data transmission system via low-voltage networks that uses the 20 to 90 kHz frequency range and provides for the coupling of node controllers via a Wide Area Network to account for the problem of the high degree of signal spread attenuation.
3. The present invention addresses the problem of how to ensure high transmission quality and security within a transmission frequency range above 148.5 kHz.

The features of the characterizing part of independent Claims 1 and 16 solve this problem in particular by providing for spreading of the data signals with a by specified logical direction; signal regeneration is done in signal processing

units in a low-voltage network as a function of the attenuation, said units giving the signals a new directional characteristic for further transmission.

4. None of the available prior art documents discloses or suggests this combination of features.